Dear Connecticut Energy and Technology Committee;

I am writing this testimonial today based on my personal experiences as being 1) an employee at two different national residential PV solar installers, as well as 2) being a homeowner who chose to "go solar" by purchasing a (heavily discounted) rooftop PV system from the first solar company for whom I worked. It is my hope that this vignette might be helpful for the Committee and/or other decision makers considering the various options for "going solar" for Connecticut residents.

My family and I moved from Colorado (where community/shared solar got its start via the Clean Energy Collective (CEC)) to Connecticut in March 2015. I was employed with a national rooftop PV installer at that time of my family's move. Simply put, after all of my experiences as an employee within the industry and as a homeowner, I wish my wife and I had decided to "go solar" via a community solar garden option back in Colorado to offset our home electricity bill instead of buying the rooftop system directly installed on our home. Therefore, I would request that the Committee consider expediting the timeline for implementation of the community/shared solar program in CT.

Beyond the well-known figure that >70% of residents cannot "go solar" via traditional rooftop PV systems, there are several additional advantages for the community/shared solar option, some of which might not be as readily apparent for those homeowners who have made a decision to "go solar." One advantage that community/shared solar has over rooftop systems is simply economies of scale that minimizes costs to stakeholders as well as timelines for installation and interconnection of renewable energy sources. Please see <a href="The Brattle Group - Comparative Generation Costs of Utility-Scale and Residential-Scale PV in Xcel Energy Colorado's Service Area for a comparison between utility-scale and residential-scale PV solar costs. Additionally, the various utilities can make decisions more rapidly about fewer numbers of interconnections of larger size (capacity) than greater numbers of smaller size, saving time, money, as well as carbon emissions.

Secondly, after our first winter with rooftop PV solar, my wife and I discovered how lingering snow on the panels of a rooftop system can significantly affect total electrical production. Because the winter of 2014-15 in the Denver-area was a difficult one with plenty of snowy days and cold temperatures, I tallied 43 days where the daily electrical production was significantly reduced by snow and conservatively estimate that this reduced production "cost" us ~\$150 all in all (Note: the price of electricity in CO is roughly 50% of the cost of that in CT), which negatively affects the payback period and original return on the investment. From my understanding about community/shared solar gardens, their ground-mounted solar arrays would be cleared by manual labor paid out of the gardens' O&M funds a lot more quickly than waiting for the snow to melt off of a rooftop. The financial AND environmental consequences of such losses of production would add up and become more significant over the years.

Additionally, another advantage – which is not very prevalent right now in the Northeast – yetbut is likely to increase as a result of the changing climate - is the fact that if/when there is hail damage to your home's roof, you will not need to deal with the hassle of having the system removed and then reinstalled so that a roofer can quickly repair/replace your home's roof. To be sure, the panels and/or components of a rooftop PV system are not typically damaged by hailstorms. However, the roof's exposed shingles are typically what are damaged, and homeowners' insurance companies and roofers typically require that the entire roof be replaced in order to have the insurance claim paid fully so that a new warranty is put in force going forward. As a former Project Planner for a national rooftop PV installer scheduling rooftop PV system removals and reinstallations, let me just say that the logistics of coordinating these projects in a timely manner was quite challenging for all stakeholders – homeowners, insurance companies, contractors, installers alike. Again, a community/shared solar array would not likely be significantly damaged by hailstorms, and thus there is likely to be continuous production of the array, so the residents participating in the community/shared solar gardens would not have to deal with any such logistical hassles, nor deal with any loss of electrical production and the subsequent financial loss.

Lastly, in closing, my wife and I chose the rooftop system option over a community/shared solar option because 1) we received a heavily discounted price from the first PV solar company that employed me, and 2) we were planning to be in the home for the long term, i.e. greater than 10-15 years, and the investment return was calculated to be higher for direct ownership of the rooftop PV system. However, unforeseen circumstances changed for our family which required us to sell our home quickly and move from Colorado. We felt that the rooftop PV system was not appropriately valued by prospective home buyers (or their agents for that matter) that viewed our home and that ultimately we felt like the buyers of our home essentially got the rooftop PV system for free along with the rest of the house. I would speculate at this point that had we decided to go with the community/shared solar option in the first place, most likely we would have had two separate sales transactions for two separate pieces of real property, each with their own market (exchange?) uniquely influenced by supply and demand, that would have ultimately yielded more money in our pockets when all was said and done.

Thank you for taking the time to read and consider my testimonial in support of expediting the timeline for implementation of the community/shared solar program in CT.

Sincerely,

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"I skate to where the puck is going to be, not where it has been."

William M. Muller IV

-Wayne Gretzky